

We claim:

1           1.       A system for printing time-based media, the system comprising:  
2                   a media processing system for determining an electronic representation of  
3                   the time-based media wherein the media processing system resides at least in  
4                   part on a multimedia printer and at least in part on an external media  
5                   processing system;  
6                   the multimedia printer including a housing for supporting an interface for  
7                   transferring time-based media between the external media processing system  
8                   and the printer, and for supporting an electronic output system in  
9                   communication with the media processing system to receive the electronic  
10                  representation, the electronic output system producing a corresponding  
11                  electronic output from the electronic representation of the time-based media;  
12                  a resource allocation module for determining processing allocation for at  
13                  least one task among the printer and the external media processing system; and  
14                  a user interface for receiving user input indicating selection of one or more  
15                  media processing resources from among resources of the printer and an  
16                  external system..

1           2.       The system of claim 1, wherein the resource allocation module determines  
2           whether the printer resource interacts as a master or as a slave with an external system.

1           3.       The system of claim 1, wherein the external media processing system is  
2           another multimedia printer coupled via a network to the interface for transferring time-  
3           based media.

1           4.       The system of claim 1, wherein the external media processing system is

2 a remote external service system coupled via a network to the interface for transferring  
3 time-based media, the external service system in communication with the media  
4 processing system for performing at least some processing steps for the time-based  
5 media.

1 5. The system of claim 1, wherein the user interface is a part of the printer.

1 6. The system of claim 5 wherein the user interface displays a request for  
2 user input from the external system.

1 7. The system of claim 5 wherein the user interface displays processing  
2 status of task being processed by the external system.

1 8. The system of claim 1, wherein the user interface is a part of the external  
2 system.

1 9. The system of claim 8 wherein the user interface displays a request for  
2 user input from the printer.

1 10. The system of claim 8 wherein the user interface displays processing  
2 status of task being processed by the printer.

1 11. The system of claim 1, wherein the interface comprises a communication  
2 interface allowing the system to be communicatively coupled to an electronic device, the  
3 electronic device providing the time-based media to the system.

1 12. The system of claim 1, wherein the interface comprises a removable media  
2 storage reader.

1 13. The system of claim 1, wherein the interface comprises a media input  
2 device selected from a group consisting of: a DVD reader, a video cassette tape reader, a  
3 CD reader, an audio cassette tape reader, and a flash card reader.

1           14.     The system of claim 1, wherein the external source is a media broadcaster,  
2     and wherein the interface comprises a media broadcast receiver that can be tuned to a  
3     media broadcast.

1           15.     The system of claim 1, wherein the interface comprises an embedded  
2     receiver selected from a group consisting of: an embedded TV receiver, an embedded  
3     radio receiver, an embedded short-wave radio receiver, an embedded satellite radio  
4     receiver, an embedded two-way radio, and an embedded cellular phone.

1           16.     The system of claim 1, wherein the interface comprises an embedded  
2     device selected from a group consisting of: an embedded heat sensor, an embedded  
3     humidity sensor, an embedded National Weather Service radio alert receiver, and an  
4     embedded TV Emergency Alert System (EAS) alert monitor.

1           17.     The system of claim 1, wherein the interface comprises embedded screen  
2     capture hardware.

1           18.     The system of claim 1, wherein the interface comprises an ultrasonic pen  
2     capture device.

1           19.     The system of claim 1, wherein the interface comprises an embedded  
2     video recorder, wherein the external source of media is a series of images captured by  
3     embedded the video recorder, converted into an electrical format, and then provided to  
4     the media processing system.

1           20.     The system of claim 1, wherein the interface comprises an embedded  
2     audio recorder, wherein the external source of media is a series of sounds that are  
3     converted into an electrical format by the embedded audio recorder and then provided to  
4     the media processing system.

1           21.     The system of claim 1, wherein the electronic output system is configured  
2     to write the electronic representation to a removable media storage device.

1           22.     The system of claim 21, wherein the removable storage device is selected  
2     from a group consisting of: a DVD, a video cassette tape, a CD, an audio cassette tape, a  
3     flash card, a computer disk, an SD disk, and a computer-readable medium.

1           23.     The system of claim 1, wherein the electronic output system comprises a  
2     handling mechanism to accommodate a plurality of removable storage devices.

1           24.     The system of claim 23, wherein the handling mechanism is selected from  
2     a group consisting of: a feeder, a bandolier, and a tray.

1           25.     The system of claim 1, wherein the electronic output system comprises a  
2     media writer selected from a group consisting of: a disposable media writer and a self-  
3     destructing media writer.

1           26.     The system of claim 1, wherein the electronic output system is coupled to  
2     a speaker system and sends an audio signal to the speaker system.

1           27.     The system of claim 26, wherein the electronic output system comprises  
2     an embedded sound player for generating the audio signal.

1           28.     The system of claim 1, wherein the electronic output system comprises an  
2     embedded web page display.

1           29.     The system of claim 1, wherein the media processing system comprises an  
2     embedded multimedia server.

1           30.     The system of claim 1, wherein the media processing system comprises an  
2     embedded audio encryption module.

1           31.     The system of claim 1, wherein the media processing system comprises an  
2 embedded video encryption module.

1           32.     The system of claim 1, wherein the media processing system comprises an  
2 embedded audio sound localization module.

1           33.     The system of claim 1, wherein the media processing system comprises an  
2 embedded video motion detection module.

1           34.     The system of claim 1, wherein the media processing system determines a  
2 printed representation of the time-based media; and the system further comprises a  
3 printed output system in communication with the media processing system to receive the  
4 printed representation, the printed output system producing a corresponding printed  
5 output from the printed representation of the time-based media.

1           35.     The system of claim 34 wherein the printed output system is one of the  
2 group of a laser printer, an inkjet printer, a thermal wax transfer printer, a dye  
3 sublimation printer, a dot matrix printer, or a plotter.

1           36.     The system of claim 34, wherein the user interface provides information to  
2 a user about at least one of the printed representation and the electronic representation of  
3 the time-based media, the user interface further accepting input from a user to cause the  
4 media processing system to modify at least one of the printed representation and the  
5 electronic representation of the time-based media.

1           37.     The system of claim 34, wherein the media processing system determines  
2 at least one of the printed representation and the electronic representation with assistance  
3 from an external media processing system that is an external computing device.

1           38.     The system of claim 34 wherein the printer further comprises the  
2 following supported by its housing:  
3                   an input source for receiving time-based media,  
4                   a first output source coupled to the input source, the first output  
5                   source producing a printed representation of the time-based  
6                   media, and  
7                   a second output source coupled to the input source, the second  
8                   output source producing an electronic representation of the  
9                   time-based media, the electronic representation of the time-  
10                  based media corresponding to the printed representation of  
11                  the time-based media; and  
12                  a display.

1           39.     The system of claim 38, wherein the input source comprises a  
2 communication interface allowing the printer to be communicatively coupled to an  
3 electronic device, the electronic device providing the media to the printer.

1           40.     The system of claim 38, wherein the input source comprises a removable  
2 media storage reader.

1           41.     The system of claim 38, wherein the input source comprises a media input  
2 device selected from a group consisting of: a DVD reader, a video cassette tape reader, a  
3 CD reader, an audio cassette tape reader, and a flash card reader.

1           42.     The system of claim 38, wherein the input source comprises a media  
2 broadcast receiver that can be tuned to a media broadcast.

1           43.     The system of claim 38, wherein the input source comprises an embedded  
2 receiver selected from a group consisting of: an embedded TV receiver, an embedded  
3 radio receiver, an embedded short-wave radio receiver, an embedded satellite radio  
4 receiver, an embedded two-way radio, and an embedded cellular phone.

1           44.     The system of claim 38, wherein the input source comprises an embedded  
2 device selected from a group consisting of: an embedded heat sensor, an embedded  
3 humidity sensor, an embedded National Weather Service radio alert receiver, and an  
4 embedded TV Emergency Alert System (EAS) alert monitor.

1           45.     The system of claim 38, wherein the input source comprises embedded  
2 screen capture hardware.

1           46.     The system of claim 38, wherein the input source comprises an ultrasonic  
2 pen capture device.

1           47.     The system of claim 38, wherein the input source comprises an embedded  
2 video recorder, wherein the external source of media is a series of images captured by  
3 embedded the video recorder, converted into an electrical format, and then provided to  
4 the media processing system.

1           48.     The system of claim 38, wherein the input source comprises an embedded  
2 audio recorder, wherein the external source of media is a series of sounds that are  
3 converted into an electrical format by the embedded audio recorder and then provided to  
4 the media processing system.

1           49.     The system of claim 38, wherein the second output source is configured to  
2 write the electronic representation to a removable media storage device.

1           50.     The system of claim 49, wherein the removable storage device is selected  
2     from a group consisting of: a DVD, a video cassette tape, a CD, an audio cassette tape, a  
3     flash card, a computer disk, an SD disk, and a computer-readable medium.

1           51.     The system of claim 38, wherein the second output source comprises a  
2     handling mechanism to accommodate a plurality of removable storage devices.

1           52.     The system of claim 51, wherein the handling mechanism is selected from  
2     a group consisting of: a feeder, a bandolier, and a tray.

1           53.     The system of claim 38, wherein the second output source comprises a  
2     media writer selected from a group consisting of: a disposable media writer and a self-  
3     destructing media writer.

1           54.     The system of claim 38, wherein the second output source is coupled to a  
2     speaker system and sends an audio signal to the speaker system.

1           55.     The system of claim 54, wherein the second output source comprises an  
2     embedded sound player for generating the audio signal.

1           56.     The system of claim 38, wherein the second output source comprises an  
2     embedded web page display.

1           57.     A method for printing time-based media in a system for printing time-  
2     based media comprising a media processing system for determining an electronic  
3     representation of the time-based media wherein the media processing system resides at  
4     least in part on a multimedia printer and at least in part on an external media processing  
5     system, the method comprising:

6                 receiving user input indicating selection of one or more media processing  
7                 resources from among resources of the printer and an external system;



8                   determining processing allocation for at least one task among the printer  
9                   and the external media processing system; and  
10                  determining the electronic representation of the time-based media using  
11                  the determined allocation of resources.

1           58.     The method of claim 57 wherein determining processing allocation for at  
2     least one task among the printer and the external media processing system further  
3     comprises determining whether the printer resource interacts as a master or as a slave  
4     with the external system.

1           59.     The method of claim 57 wherein a user interface embedded on the  
2     multimedia printer displays a request for user input from the external system.

1           60.     The method of claim 59 wherein the user interface displays processing  
2     status of task being processed by the external system.

1           61.     The method of claim 57, wherein a user interface that is a part of the  
2     external system displays a request for user input from the printer.

1           62.     The method of claim 57, wherein the user interface displays processing  
2     status of task being processed by the printer.

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